10. (Twice Amended) The method of Claim 1, wherein said α-MSH compound has the following identifying characteristics: (1) an ability to bind to a melanocortin receptor that is expressed in peripheral tissues, and, (2) a biological activity selected from the group consisting of Stimulation of lipolysis and inhibition of the uptake of fatty acids by adipocytes.

55. (Twice Amended) The method of Claim 1, wherein said composition further comprises an agent that inhibits binding of said α-MSH Compound to an MC4-R.

56. (Twice Amended) The method of Claim 1, wherein said composition further comprises an agent which inhibits said α-MSH Compound from entering the central nervous system of said animal.

59. (Twice Amended) A method of decreasing the body weight or reducing the rate of weight gain in an animal, comprising administering to an animal a melanocyte stimulating hormone (MSH) compound selected from the group consisting of α-MSH and an α-MSH agonist in an amount effective to bind to melanocortin receptors expressed by said animal in said animal's peripheral tissues, said effective amount:

(a) being insufficient to substantially change the appetite of said animal after said step of administering as compared to before said step of administering;

(b) being between about 0.1 μg and about 10 mg per kg, of body weight of said animal;

(c) being sufficient to affect a biological activity selected from the group consisting of:

(i) lipolysis; and,

(ii) uptake of fatty acids by adipocytes in said animal; and,

(d) being effective to measurably decrease the body weight or reduce the rate of weight gain of said animal after said compound has been administered to said animal.

C5

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117. (Once Amended) The method of claim 119, wherein (k) AA^5 is α,γ-diaminopropionic acid, α,γ-diaminobutyric acid, Orn, Lys, α,β-aminoadipic acid, α-aminopimelic acid, or higher homologs, Glu or Asp and AA^{11} is α,β-diaminopropionic acid, α,γ-diaminobutyric acid, Orn, Lys, α-aminoadipic acid, α-aminopimelic acid, Glu or Asp.

C4

Please cancel and re-write claim 115 as new claim 119 as follows:

C7

--119. (New) The method of Claim 1, wherein said compound is an α-MSH analog selected from the group consisting of:

(k) Ac-[Cys^4, D-Phe^7, Cys^{10}] α-MSH, wherein said Cys residues are connected by a disulfide bond;

(k) Ac-[Nle^4, $X_{aa}{}^5$, His^6, $X_{aa}{}^7$, Arg^8, Trp^9, $X_{aa}{}^{10}$] NH_2, (SEQ ID NO:3) wherein $X_{aa}{}^5$ is Glu or Asp, $X_{aa}{}^7$ is Phe or D-Phe and $X_{aa}{}^{10}$ is a dibasic amino acid, Lys, ornithine, 2,4-diaminobutyric acid, or 2,3 diaminopropionic acid (Dpr);

(k) IAc-[Cys^4, Cys^{10}]α-$MSH_{1\text{-}13}NH_2$;

(k) R_1-W-X-Y-Z-R_2,

wherein R_1 is selected from the group consisting of Ac-Gly-, Ac-Met-Glu-, Ac-Nle-Glu- and Ac-Tyr-Glu-;

W is selected from the group consisting of –His- and –D-His-;

X is selected from the group consisting of –Phe-, -D-Phe-, -Tyr, -D-Tyr-, (-pNO_2)D-Phe^7-;

Y is selected from the group consisting of –Arg- and –D-Arg-;

Z is selected from the group consisting of –Trp- and –D-Trp-; and,

R_2 is selected from the group consisting of $-NH_2$, -Gly-NH_2, and –Gly-Lys-NH_2;

(k) Ac-Ser-Tyr-Ser-M-Glu-His-D-Phe-Arg-Trp-Gly-Lys-Pro-Val-NH_2 (SEQ ID NO:4);

wherein M is selected from the group consisting of Met, Nle, and Cys;

(k) [Nle^4, D-Phe^7]-α-MSH;

(k) [Nle^4, D-Phe^7] –α-MSH_{4-10};

(k) [Nle^4, D-Phe^7] –α-MSH_{4-11};

(k) [Nle^4, D-Phe^7,D-Trp^9] –α-MSH_{4-11};

(k) [Nle^4, D-Phe^7] –α-MSH_{4-9}; and

(k) Ac-[Nle^4, AA^5, D-Phe^7, AA^{10}]-R_1 or Ac-[Nle^4, AA^5, D-Phe^7, AA^{11}]-R_2;

wherein AA^5 may be either a L-or D-amino acid having an omega amino or carboxyl group in the side chain;

wherein AA^{10} may be diaminopropionic acid, α,γ-diaminobutyric acid, Orn, Lys, α,β-aminoadipic acid, α-aminopimelic acid, or higher homologs, Glu or Asp;

wherein R_1 is the designation α-$MSH_{1-13}NH_2$, α-$MSH_{1-12}NH_2$, α-$MSH_{1-11}H_2$; α-$MSH_{4-13}NH_2$, or α-$MSH_{4-10}NH_2$;

wherein AA^{11} may be L- or D-amino acid having an omega amino or carboxyl group in the side chain;

wherein R_2 is the designation a $MSH_{1-13}NH_2$, α-$MSH_{1-12}NH_2$, α-$MSH_{1-11}NH_2$, α-$MSH_{4-13}NH_2$, or α-$MSH_{4-10}NH_2$.

REMARKS

Pursuant to the restriction requirement and election made by Applicants and filed on July 1, 2002, acknowledged in the Office Action at page 2, Applicant has elected to prosecute certain claims to facilitate prosecution and comply with the Restriction